



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,981	10/31/2003	Meir Avraham	246/194	8963
71511	7590	12/26/2007		
MARK M. FRIEDMAN C/O DISCOVEY DISPATCH , 9003 FLIRIN WAY UPPER MARLBORO, MD 20772			EXAMINER BRITT, CYNTHIA H	
			ART UNIT 2117	PAPER NUMBER
			MAIL DATE 12/26/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/697,981

Applicant(s)

AVRAHAM, MEIR

Examiner

Cynthia Britt

Art Unit

2117

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,3,6-8,10-23,26-30,32-38,40-42 and 44-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 2,3,6-8,10-23,26-30,32-38,40-42 and 44-47 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

CYNTHIA BRITT  
PRIMARY EXAMINER

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 18-22, 37, and 46, drawn to a method of assembling and testing a specific circuit arrangement, classified in class 714, subclass 718.
- II. Claims 23, 38, and 47, drawn to a device containing a specific circuit arrangement, classified in class 714, subclass 718.
- III. Claims 2-3, 6-8, 10-12, 14-17, 29, 36, 40, 44, and 45, drawn to a method of assembling and testing a specific circuit arrangement, classified in class 714, subclass 734.
- IV. Claims 26-28, drawn to a method of assembling and testing a specific circuit arrangement, classified in class 714, subclass 718.
- V. Claims 32-35 and 42, drawn to a method of assembling and testing a specific circuit arrangement, classified in class 714, subclass 718.
- VI. Claims 30 and 41, drawn to a method of assembling and testing a specific circuit arrangement, classified in class 714, subclass 718.

The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Group II are directed to related method and device for testing memory. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are

mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group II requires a volatile memory to be fabricated on a separate chip and the CPU is only required to be connected to one of the memories where in Group I the CPU is required to be connected to the nonvolatile memory chip but the volatile memory chip is not required to be separate. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group I and Group III are directed to related method of assembling and testing an electronic device. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group I requires the CPU to be connected to the nonvolatile memory chip but the volatile memory chip is not required to be separate where Group III requires the CPU to be operably connected to both the volatile memory and the nonvolatile and also requires the CPU to be tested. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group I and Group IV are directed to related method of assembling and testing an electronic device. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially

different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group I requires the CPU to be connected to the nonvolatile memory chip but the volatile memory chip is not required to be separate where Group IV requires all the chips to be connected to each other which would include the nonvolatile memory to be connected to the volatile memory. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group I and Group V are directed to related method of assembling and testing an electronic device. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group I requires the CPU to be connected to the nonvolatile memory chip but the volatile memory chip is not required to be separate where Group V requires that the CPU is connected to both the volatile and nonvolatile memory but only one of the memories are required to be tested. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group I and Group VI are directed to related method of assembling and testing an electronic device. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group I requires the CPU to be connected to the nonvolatile memory chip but the volatile memory chip is not required to be separate where Group VI requires only a CPU connected to a volatile memory and nonvolatile memory is not required. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group II and Group III are directed to related method and device for testing memory. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group II requires a volatile memory to be fabricated on a separate chip and the CPU is only required to be connected to one of the memories where in Group III requires the CPU to be operably connected to both the volatile memory and the nonvolatile and also requires the CPU to be tested. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group II and Group IV are directed to related method and device for testing memory. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group II requires a volatile memory to be fabricated on a separate chip and the CPU is only required to be connected to one of the memories where in Group IV requires all the chips to be connected to each other which would include the nonvolatile memory to be connected to the volatile memory. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group II and Group V are directed to related method and device for testing memory. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group II requires a volatile memory to be fabricated on a separate chip and the CPU is only required to be connected to one of the memories where in Group V requires that the CPU is connected to both the volatile and nonvolatile memory but only one of the memories are required to

be tested. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group II and Group VI are directed to related method and device for testing memory. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group II requires a volatile memory to be fabricated on a separate chip and the CPU is only required to be connected to one of the memories where Group VI requires only a CPU connected to a volatile memory and nonvolatile memory is not required. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group III and Group IV are directed to related method of assembling and testing an electronic device. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group III requires the CPU to be operably connected to both the volatile memory and the nonvolatile and also requires the CPU to be tested Group IV requires all the chips to be connected to each other which would include the nonvolatile memory to be connected



to the volatile memory. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group III and Group V are directed to related method of assembling and testing an electronic device. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group III requires the CPU to be operably connected to both the volatile memory and the nonvolatile and also requires the CPU to be tested Group V requires that the CPU is connected to both the volatile and nonvolatile memory but only one of the memories are required to be tested. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group III and Group VI are directed to related method of assembling and testing an electronic device. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group III requires the CPU to be operably connected to both the volatile memory and the

nonvolatile and also requires the CPU to be tested and Group VI requires only a CPU connected to a volatile memory and nonvolatile memory is not required. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group IV and Group V are directed to related method of assembling and testing an electronic device. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group IV requires all the chips to be connected to each other which would include the nonvolatile memory to be connected to the volatile memory and Group V requires that the CPU is connected to both the volatile and nonvolatile memory but only one of the memories are required to be tested. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group IV and Group VI are directed to related method of assembling and testing an electronic device. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group

IV requires all the chips to be connected to each other which would include the nonvolatile memory to be connected to the volatile memory and Group VI requires only a CPU connected to a volatile memory and nonvolatile memory is not required. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Inventions Group V and Group VI are directed to related method of assembling and testing an electronic device. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed Group V requires that the CPU is connected to both the volatile and nonvolatile memory but only one of the memories are required to be tested and Group VI requires only a CPU connected to a volatile memory and nonvolatile memory is not required. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required

because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Britt whose telephone number is 571-272-3815. The examiner can normally be reached on Monday - Thursday.

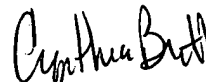
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on 571-272-6962. The fax phone

Application/Control Number:  
10/697,981  
Art Unit: 2117

Page 12

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Cynthia Britt 12-15-07  
Primary Examiner  
Art Unit 2117